



SEQUENCE LISTING

<110> HASHIMOTO, Koji
ASHIMOTO, Michie
MISHIRO, Shunji
OOTA, Yasuhiko

<120> DETECTION OF NUCLEIC ACID ASSOCIATED WITH DISEASE

<130> 220633US2SRDPCT

<140> US 10/070,415

<141> 2002-03-15

<150> PCT/JP02/02030

<151> 2002-03-05

<150> JP 2001-090053

<151> 2001-03-27

<150> JP 2001-284112

<151> 2001-09-18

<160> 72

<170> PatentIn version 3.1

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gagcctccgg agcaccttga tcctcagacg ggctgatga aacgagcatc tgattcagca      360
ggcctggggt cggggccgag aacctgcgtc tcccgcgagt tcccgcgagg caagtgctgn      420
aggtgcgggg ccaggagcta ggtttcgttt ctgctcccgg agccgccctc agcacagggt      480
ctgtgagttt cattttcttcg ccggcgcggg gcggggctgg gcgcgggggtg aaagaggcga      540
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ctgtgagttt cattttcttcg ccggcgcggg gcggggctgg gcgcgggggtg aaagaggcga      540
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<223> n is one nucleotide selected from a, g, c, or t	


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<210> 38
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<220>
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<223> n is one nucleotide selected from a, g, c, or t

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. <210> 39
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 <223> n is a nucleotide selected from a, g, c, or t

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 ctgcagccat tggcacacaa tgctgggag tccctgctgg tgctgggatc atcccagtga 180
 gccctgggag ggaactgaag acccccaatt accaatgcat ctgttttcaa aaccgacggg 240
 gggaaggaca tgcctaggtt caaggatacg tgcaggcttg gatgactccg ggccattagg 300
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  ctgtgagttt catttcttcg ccggcgcggg gcggggctgg gcgcgggggtg aaagaggcga 540
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<223> n is a nucleotide selected from a, g, c, or t

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<223> n is a nucleotide selected from a, g, c, or t

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<223> n is a nucleotide selected from a, g, c, or t

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ccagttaatt ctgggctggg ttggtgacta aggttgaggt tgatctgagg ttgagacctt 180
cctcttttga tcaccagctt tcagctcagg gcctgccaat gagtaaatga tagttaacag 240
gtcctggagg ggaatcagct gccagatac aaagatggga ttcagggtggc agatggaccc 300
gaagaggaca tggagagaaa gaggaagctc ctacagacac ctgggtttcc actcattctc 360

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<220>
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<220>
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 <223> n is a nucleotide selected from a, g, c, or t

<220>
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<220>
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 <223> n is a nucleotide selected from a, g, c, or t

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 gttcattaac tgagattaac cttccctgag tttcttcaca ccaaggtgag gaccatgtcc 720
 ctgtttccat cactccctct ccttctcctg agtatggtgg cagcgtctta ctcagaaact 780
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<223> n is a nucleotide selected from a, g, c, or t

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<220>
 <221> misc_feature
 <222> (875)..(875)
 <223> n is a nucleotide selected from a, g, c, or t

<220>
 <221> misc_feature
 <222> (884)..(884)
 <223> n is a nucleotide selected from a, g, c, or t

<400> 43
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 atttccagag aaaatgctta cccaggcaag cctgtntaaa acaccaaggg gaagcaaact 120
 ccagttaatt ctgggctggg ttggtgacta aggttgaggt tgatctgagg ttgagacctt 180
 cctcttttga tcaccagctt tcagctcagg gcctgccaat gagtaaata tagttaacag 240
 gtctctggagg ggaatcagct gccagatac aaagatggga ttcaggtggc agatggaccc 300
 gaagaggaca tggagagaaa gaggaagctc ctacagacac ctgggtttcc actcattctc 360
 attccctaag ctaacaggca taagccagct ggcaatgcac ggtcccattt gttctcactg 420
 ccacagaaaag catgtttata gtcttcacgc agcaacgcc ggtgtctagg cacagatgaa 480
 cccctcctta ggatccccac tgctcatcat agtgccctacc tttgttaaag tactagtcac 540
 gcagtgtcac aaggaatgtt tacttttcca aatccccagc tagaggccag ggatgggtca 600
 tctattttcta tatagcctgc acccagattg taggacagag ggcattgctng gtaaatatgt 660
 gttcattaac tgagattaac cttccctgag tttcttcaca ccaaggtgag gaccatgtcc 720
 ctgtttccat cactccctct cttctcctg agtatgggtg cagcgtctta ctcagaaact 780
 gtgacctgtg aggatgcca aaagacctgc cctgcagtga ttgcctgtag ctctccaggg 840
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 ggtacgtgtt gggctgttct gtctctgcaa ttctttacct tccagaggaa actgcctggg 960
 gatatgagga gactgatgtc ctatttgagt atatttttct caactatact gtaactcaaa 1020
 acagagattc agctcgaatt ccacacagca gtttgtgact aatagttgtc ttgccagccc 1080
 aggaaagtgg cccacaggctc aggccatccc gtgggacaca ggatgaattt ttcttctctg 1140
 ggtcattgtc atgtcagacc cctattcact tcagtaggga tggcaccagg ttcaagaggc 1200
 caaagaagag atggagtcag caaacaaca taggttttac tgggggaatc tgtttacagg 1260

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gagatccagc agcagtgggc tggacaggag aacaacaact actggtaaaa acaaatgcag 1320
ttaattttca ctttgcaccc tcctgcagc aacctccacg tggcaacttt atttcttaag 1380
ttattgctct caggtgcaca ccatacagtt attgagagca gtgctcagaa aggtcagtcc 1440
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gcaagaacat agatattaag tcacatttcc tttgtcttcc aacaggccaa gggctcagag 1560
gcttacaggg cccccctgga aagttggggc ctccaggaaa tccagggcct tctgggtcac 1620
caggaccaaa gggccaaaaa ggagaccctg gaaaaagtcc gggtaaggac cccagcaagg 1680
tctgagctga cttcacccag ggttctgaga ccttgagtat ctggtaagag gtgccccctc 1740
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tc 1802

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<210> 44
<211> 1802
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (96)..(96)
<223> n is a nucleotide selected from a, g, c, or t

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<220>
<221> misc_feature
<222> (649)..(649)
<223> n is a nucleotide selected from a, g, c, or t

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<220>
<221> misc_feature
<222> (868)..(868)
<223> n is a nucleotide selected from a, g, c, or t

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<220>
<221> misc_feature
<222> (875)..(875)
<223> n is a nucleotide selected from a, g, c, or t

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<220>
<221> misc_feature
<222> (884)..(884)
<223> n is a nucleotide selected from a, g, c, or t

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<400> 44

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gaattcctgc cagaaagtag agaggtat	tt agcactctgc cagggccaac gtagtaagaa	60
atttccagag aaaatgctta cccaggcaag	cctgtntaaa acaccaaggg gaagcaaact	120
ccagttaatt ctgggctggg ttggtgacta	aggttgaggt tgatctgagg ttgagacctt	180
cctctttgga tcaccagctt tcagctcagg	gcctgccaat gagtaaatga tagttaacag	240
gtcctggagg ggaatcagct gcccagatac	aaagatggga ttcaggtggc agatggaccc	300
gaagaggaca tggagagaaa gaggaagctc	ctacagacac ctgggtttcc actcattctc	360
attccctaag ctaacaggca taagccagct	ggcaatgcac ggtcccat	420
ccactgaaag catgtttata gtcttcagc	agcaacgcc ggtgtctagg cacagatgaa	480
cccctcctta ggatccccac tgctcatcat	agtgcctacc tttgttaaag tactagtcac	540
gcagtgtcac aaggaatgtt tacttttcca	aatccccagc tagaggccag ggatgggtca	600
tctattttcta tatagcctgc acccagattg	taggacagag ggcattgctng gtaaatatgt	660
gttcattaac tgagattaac cttccctgag	ttttctcaca ccaaggtgag gaccatgtcc	720
ctgtttccat cactccctct ctttctcctg	agtatgggtg cagcgtctta ctcagaaact	780
gtgacctgtg aggatgccca aaagacctgc	cctgcagtga ttgcctgtag ctctccaggc	840
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ggtagctgtt gggctgttct gtctctgcaa	ttctttacct tccagaggaa actgcctggg	960
gatatgagga gactgatgtc ctatttgagt	atatttttct caactatact gtaactcaaa	1020
acagagattc agctcgaatt ccacacagca	gtttgtgact aatagttgtc ttgccagccc	1080
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caaagaagag atggagtcag caaacaacaa	taggttttac tgggggaatc tgtttacagg	1260
gagatccagc agcagtgggc tggacaggag	aacaacaact actggtaaaa acaaatgcag	1320
ttaattttca ctttgcaccc tccctgcagc	aacctccacg tggcaacttt atttcttaag	1380
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tgggtcaagg tctcccttct cctgagaagg	gattgggcat caaactcttg aagagagaga	1500
gcaagaacat agatattaag tcacatttcc	tttgtcttcc aacaggccaa gggctcagag	1560
gcttacaggg cccccctgga aagttggggc	ctccaggaaa tccagggcct tctgggtcac	1620
caggaccaa gggccaaaaa ggagaccctg	gaaaaagtcc gggtaaggac cccagcaagg	1680
tctgagctga cttcaccag ggttctgaga	ccttgagtat ctggtaagag gtgcccttc	1740

tcctgttcct tcaaaggaag ataccctaat ttgttttctg acccagtgcc ctcagccctc 1800
 tc 1802

<210> 45
 <211> 1802
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (96)..(96)
 <223> n is a nucleotide selected from a, g, c, or t

<220>
 <221> misc_feature
 <222> (649)..(649)
 <223> n is a nucleotide selected from a, g, c, or t

<220>
 <221> misc_feature
 <222> (868)..(868)
 <223> n is a nucleotide selected from a, g, c, or t

<220>
 <221> misc_feature
 <222> (884)..(884)
 <223> n is a nucleotide selected from a, g, c, or t

<220>
 <221> misc_feature
 <222> (425)..(425)
 <223> n is a nucleotide selected from a, g, c, or t

<400> 45
 gaattcctgc cagaaagtag agaggtattt agcactctgc cagggccaac gtagtaagaa 60
 atttccagag aaaatgctta cccaggcaag cctgtntaaa acaccaaggg gaagcaaact 120
 ccagttaatt ctgggctggg ttggtgacta aggttgaggt tgatctgagg ttgagacctt 180
 cctctttgga tcaccagctt tcagctcagg gcctgccaat gagtaaatga tagttaacag 240
 gtcttgagg ggaatcagct gccagatac aaagatggga ttcagggtggc agatggaccc 300
 gaagaggaca tggagagaaa gaggaagctc ctacagacac ctggggtttcc actcattctc 360
 attccctaag ctaacaggca taagccagct ggcaatgcac ggtcccattt gttctcactg 420
 ccacngaaag catgtttata gtcttccagc agcaacgcca ggtgtctagg cacagatgaa 480

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ccccctcctta ggatccccac tgctcatcat agtgcctacc tttgttaaag tactagtcac      540
gcagtgtcac aaggaatgtt tacttttcca aatccccagc tagaggccag ggatgggtca      600
tctattttcta tatagcctgc acccagattg taggacagag ggcattgctng gtaaatatgt      660
gttcattaac tgagattaac cttccctgag ttttctcaca ccaaggtgag gaccatgtcc      720
ctgtttccat cactccctct ctttctcctg agtatgggtgg cagcgtctta ctcagaaact      780
gtgacctgtg aggatgcccc aaagacctgc cctgcagtga ttgcctgtag ctctccaggc      840
atcaacggct tcccaggcaa agatgggngt gatggcacca aggnagaaaa gggggaacca      900
ggtagctgtt gggctgttct gtctctgcaa ttctttacct tccagaggaa actgcctggg      960
gatatgagga gactgatgtc ctatttgagt atatttttct caactatact gtaactcaaa    1020
acagagattc agctcgaatt ccacacagca gtttgtgact aatagttgtc ttgccagccc    1080
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caggacaaaa gggccaaaaa ggagaccctg gaaaaagtcc gggtaaggac ccagcaagg    1680
tctgagctga cttcaccagc ggttctgaga ccttgagtat ctggtaagag gtgcccttc    1740
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tc                                                                 1802

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<210> 46
<211> 1802
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (96)..(96)
<223> n is a nucleotide selected from a, g, c, or t

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<220>
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 <222> (425)..(425)
 <223> n is a nucleotide selected from a, g, c, or t

<220>
 <221> misc_feature
 <222> (649)..(649)
 <223> n is a nucleotide selected from a, g, c, or t

<220>
 <221> misc_feature
 <222> (868)..(868)
 <223> n is a nucleotide selected from a, g, c, or t

<220>
 <221> misc_feature
 <222> (884)..(884)
 <223> n is a nucleotide selected from a, g, c, or t

<400> 46
 gaattcctgc cagaaagtag agaggtatth agcactctgc cagggccaac gtagtaagaa 60
 atttccagag aaaatgctta cccaggcaag cctgtntaaa acaccaaggg gaagcaaact 120
 ccagttaatt ctgggctggg ttggtgacta aggttgaggt tgatctgagg ttgagacctt 180
 cctcttttga tcaccagctt tcagctcagg gcctgccaat gagtaaatga tagttaacag 240
 gtcttgagg ggaatcagct gccagatac aaagatggga ttcaggtggc agatggaccc 300
 gaagaggaca tggagagaaa gaggaagctc ctacagacac ctgggtttcc actcattctc 360
 attccctaag ctaacaggca taagccagct ggcaatgcac ggtcccatth gttctcactg 420
 ccacngaaag catgtttata gtcttcagc agcaacgcca ggtgtctagg cacagatgaa 480
 cccctcctta ggatccccac tgctcatcat agtgccctacc tttgttaaag tactagtcac 540
 gcagtgtcac aaggaatgtt tactttttcca aatccccagc tagaggccag ggatgggtca 600
 tctattttcta tatagcctgc acccagattg taggacagag ggcattgctng gtaaatatgt 660
 gttcattaac tgagattaac ctccctgag ttttctcaca ccaaggtgag gaccatgtcc 720
 ctgtttccat cactccctct ccttctcctg agtatggtgg cagcgtctta ctcagaaact 780
 gtgacctgtg aggatgcccc aaagacctgc cctgcagtga ttgcctgtag ctctccaggc 840
 atcaacggct tcccaggcaa agatggngt gatgacacca aggnagaaaa gggggaacca 900

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. ggtacgtggtt gggctgttct gtctctgcaa ttctttacct tccagaggaa actgcctggg      960
  gatatgagga gactgatgtc ctatttgagt atatttttct caactatact gtaactcaaa    1020
  acagagattc agctcgaatt ccacacagca gtttgtgact aatagttgtc ttgccagccc    1080
  aggaaagtgg cccacaggtc aggccatccc gtgggacaca ggatgaattt ttcttctctg    1140
  ggtcattgtc atgtcagacc cctattcact tcagtaggga tggcaccagg ttcaagaggc    1200
  caaagaagag atggagtcag caaacaacaa taggttttac tgggggaatc tgtttacagg    1260
  gagatccagc agcagtgggc tggacaggag aacaacaact actggtaaaa acaaatgcag    1320
  ttaattttca ctttgcaccc tccctgcagc aacctccaag tggcaacttt atttcttaag    1380
  ttattgctct caggtgcaca ccatacagtt attgagagca gtgctcagaa aggtcagtcc    1440
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  gcaagaacat agatattaag tcacatttcc tttgtcttcc aacaggccaa gggctcagag    1560
  gcttacaggg cccccctgga aagttggggc ctccaggaaa tccagggcct tctgggtcac    1620
  caggaccaa gggccaaaaa ggagaccctg gaaaaagtcc gggtaaggac ccagcaagg    1680
  tctgagctga cttcacccag ggttctgaga ccttgagtat ctggtaagag gtgccccctc    1740
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  tc                                                                    1802

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<210> 47
<211> 1802
<212> DNA
<213> Homo sapiens

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<220>
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<222> (96)..(96)

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<223> n is a nucleotide selected from a, g, c, or t

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<220>
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<222> (425)..(425)
<223> n is a nucleotide selected from a, g, c, or t

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<220>
<221> misc_feature
<222> (649)..(649)
<223> n is a nucleotide selected from a, g, c, or t

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<220>

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<221> misc_feature
 <222> (868)..(868)
 <223> n is a nucleotide selected from a, g, c, or t

<220>
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 <222> (884)..(884)
 <223> n is a nucleotide selected from a, g, c, or t

<400> 47
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 atttccagag aaaatgctta cccaggcaag cctgtntaaa acaccaaggg gaagcaaact 120
 ccagttaatt ctgggctggg ttggtgacta aggttgaggt tgatctgagg ttgagacctt 180
 cctcttttga tcaccagctt tcagctcagg gcctgccaat gagtaaata tagttaacag 240
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 gaagaggaca tggagagaaa gaggaagctc ctacagacac ctggggtttcc actcattctc 360
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tc 1802

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<210> 48
<211> 1802
<212> DNA
<213> Homo sapiens

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<220>
<221> misc_feature
<222> (96)..(96)
<223> n is a nucleotide selected from a, g, c, or t

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<220>
<221> misc_feature
<222> (425)..(425)
<223> n is a nucleotide selected from a, g, c, or t

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<220>
<221> misc_feature
<222> (649)..(649)
<223> n is a nucleotide selected from a, g, c, or t

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<220>
<221> misc_feature
<222> (868)..(868)
<223> n is a nucleotide selected from a, g, c, or t

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<220>
<221> misc_feature
<222> (884)..(884)
<223> n is a nucleotide selected from a, g, c, or t

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<400> 48
gaattcctgc cagaaagtag agaggtatth agcactctgc cagggccaac gtagtaagaa 60
atttccagag aaaatgctta cccaggcaag cctgtntaaa acaccaaggg gaagcaaact 120

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ccagttaatt	ctgggctggg	ttggtgacta	aggttgaggt	tgatctgagg	ttgagacctt	180
cctcttttga	tcaccagctt	tcagctcagg	gcctgccaat	gagtaaatga	tagttaacag	240
gtcctggagg	ggaatcagct	gcccagatac	aaagatggga	ttcaggtggc	agatggaccc	300
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ggtcattgtc	atgtcagacc	cctattcact	tcagtaggga	tggcaccagg	ttcaagaggc	1200
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ttaattttca	ctttgcaccc	tccttcagc	aacctccacg	tggcaacttt	atttcttaag	1380
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caggacaaa	gggccaaaaa	ggagaccctg	gaaaaagtcc	gggtaaggac	cccagcaagg	1680
tctgagctga	cttcacccag	ggttctgaga	ccttgagtat	ctggtaagag	gtgccccttc	1740
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<210> 49
 <211> 1802
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (96)..(96)
 <223> n is a nucleotide selected from a, g, c, or t

<220>
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 <223> n is a nucleotide selected from a, g, c, or t

<220>
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 <222> (649)..(649)
 <223> n is a nucleotide selected from a, g, c, or t

<220>
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 <222> (884)..(884)
 <223> n is a nucleotide selected from a, g, c, or t

<220>
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 <222> (875)..(875)
 <223> n is a nucleotide selected from a, g, c, or t

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 ccagttaatt ctgggctggg ttggtgacta aggttgaggt tgatctgagg ttgagacctt 180
 cctctttgga tcaccagctt tcagctcagg gcctgccaat gagtaaatga tagttaacag 240
 gtcctggagg ggaatcagct gccagatac aaagatggga ttcaggtggc agatggaccc 300
 gaagaggaca tggagagaaa gaggaagctc ctacagacac ctgggtttcc actcattctc 360
 attccctaag ctaacaggca taagccagct ggcaatgcac ggtcccattt gttctcactg 420
 ccacngaaag catgtttata gtcttccagc agcaacgccca ggtgtctagg cacagatgaa 480
 ccctcctta ggatccccac tgctcatcat agtgcctacc tttgttaaag tactagtcac 540

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gcagtgtcac aaggaatggt tactttttcca aatccccagc tagaggccag ggatgggtca 600
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caggaccaa gggccaaaaa ggagaccctg gaaaaagtcc gggtaggac cccagcaagg 1680
tctgagctga cttcaccag ggttctgaga ccttgagtat ctggtaagag gtgccccctc 1740
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tc 1802

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<210> 50
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<212> DNA
<213> Homo sapiens

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<220>

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 <223> n is a nucleotide selected from a, g, c, or t

<220>
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 <223> n is a nucleotide selected from a, g, c, or t

<220>
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 <223> n is a nucleotide selected from a, g, c, or t

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 ccagttaatt ctgggctggg ttggtgacta aggttgaggt tgatctgagg ttgagacctt 180
 cctctttgga tcaccagctt tcagctcagg gcctgccaat gagtaaata tagttaacag 240
 gtcttgagg ggaatcagct gccagatac aaagatggga ttcaggtggc agatggaccc 300
 gaagaggaca tggagagaaa gaggaagctc ctacagacac ctgggtttcc actcattctc 360
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 ccacngaaag catgtttata gtcttcagc agcaacgcca ggtgtctagg cacagatgaa 480
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 tctattttcta tatagcctgc acccagattg taggacagag ggcatgctng gtaaatatgt 660
 gttcattaac tgagattaac ctccctgag tttctcaca ccaaggtgag gaccatgtcc 720
 ctgtttccat cactccctct cttctcctg agtatgggtg cagcgtctta ctcagaaact 780
 gtgacctgtg aggatgcccc aaagacctgc cctgcagtga ttgcctgtag ctctccaggg 840
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 ggtacgtgtt gggtgttct gtctctgcaa ttctttacct tccagaggaa actgcctggg 960
 gatatgagga gactgatgtc ctatttgagt atatttttct caactatact gtaactcaaa 1020

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acagagattc agctcgaatt ccacacagca gtttgtgact aatagttgtc ttgccagccc 1080
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ggtcattgtc atgtcagacc cctattcact tcagtaggga tggcaccagg ttcaagagggc 1200
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tc 1802

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<212> DNA
<213> Homo sapiens

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<223> n is a nucleotide selected from a, g, c, or t

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<223> n is a nucleotide selected from a, g, c, or t

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<220>
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<222> (875)..(875)
<223> n is a nucleotide selected from a, g, c, or t

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<220>
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ccagttaatt ctgggctggg ttgggtgacta aggttgaggt tgatctgagg ttgagacctt      180
cctcttttga tcaccagctt tcagctcagg gcctgccaat gagtaaatga tagttaacag      240
gtcctggagg ggaatcagct gccagatac aaagatggga ttcagggtggc agatggaccc      300
gaagaggaca tggagagaaa gaggaagctc ctacagacac ctgggtttcc actcattctc      360
attccctaag ctaacaggca taagccagct ggcaatgcac ggtcccatth gttctcactg      420
ccacngaaag catgtttata gtcttccagc agcaacgcca ggtgtctagg cacagatgaa      480
cccctcctta ggatccccac tgctcatcat agtgccacc tttgttaaag tactagtcac      540
gcagtgtcac aaggaatgth tacttttcca aatccccagc tagaggccag ggatgggtca      600
tctatttcta tatagcctgc acccagattg taggacagag ggcattgctng gtaaatatgt      660
gttcattaac tgagattaac cttccctgag ttttctcaca ccaagggtgag gaccatgtcc      720
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ggtagctgth gggctgttct gtctctgcaa ttctttacct tccagaggaa actgcctggg      960
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caaagaagag atggagtcag caaacaacaa taggtttttac tgggggaatc tgtttacagg     1260
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. tgggtcaagg tctcccttct cctgagaagg gattgggcat caaactcttg aagagagaga 1500
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tc 1802

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<211> 1802
<212> DNA
<213> Homo sapiens

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<223> n is a nucleotide selected from a, g, c, or t

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<220>
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<222> (649)..(649)
<223> n is a nucleotide selected from a, g, c, or t

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<220>
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<223> n is a nucleotide selected from a, g, c, or t

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<400> 52
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ccagttaatt ctgggctggg ttggtgacta aggttgaggt tgatctgagg ttgagacctt 180

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cctcttttga	tcaccagctt	tcagctcagg	gcctgccaat	gagtaaata	tagttaacag	240
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gaagaggaca	tggagagaaa	gaggaagctc	ctacagacac	ctgggtttcc	actcattctc	360
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gttcattaac	tgagattaac	cttccctgag	ttttctcaca	ccaaggtgag	gaccatgtcc	720
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. <210> 53
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  <212> DNA
. <213> Homo sapiens

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<220>
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<223> n is a nucleotide selected from a, g, c, or t

<220>
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ccagttaatt ctgggctggg ttggtgacta aggttgaggt tgatctgagg ttgagacctt 180
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cccctcctta ggatccccac tgctcatcat agtgcctacc tttgttaaag tactagtcac 540
gcagtgtcac aaggaatggt tacttttcca aatccccagc tagaggccag ggatgggtca 600
tctatttcta tatagcctgc acccagattg taggacagag ggcattgctng gtaaatatgt 660

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 <223> n is a nucleotide selected from a, g, c, or t

<220>
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 <223> n is a nucleotide selected from a, g, c, or t

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 ccagttaatt ctgggctggg ttggtgacta aggttgaggt tgatctgagg ttgagacctt 180
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 ccagttaatt ctgggctggg ttggtgacta aggttgaggt tgatctgagg ttgagacctt 180
 cctctttgga tcaccagctt tcagctcagg gcctgccaat gagtaaata tagttaacag 240
 gtcttgagg ggaatcagct gccagatac aaagatggga ttcagggtggc agatggaccc 300
 gaagaggaca tggagagaaa gaggaagctc ctacagacac ctgggtttcc actcattctc 360
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 ccacngaaag catgtttata gtcttcagc agcaacgcca ggtgtctagg cacagatgaa 480
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ttattgctct caggtgcaca ccatacagtt attgagagca gtgctcagaa aggtcagtcc 1440
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gcttacaggg cccccctgga aagttggggc ctccaggaaa tccagggcct tctgggtcac 1620
caggaccaaa gggccaaaaa ggagaccctg gaaaaagtcc gggtaaggac cccagcaagg 1680
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ccagttaatt ctgggctggg ttggtgacta aggttgaggt tgatctgagg ttgagacctt	180
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gtcctggagg ggaatcagct gccagatac aaagatggga ttcaggtggc agatggaccc	300
gaagaggaca tggagagaaa gaggaagctc ctacagacac ctggggtttcc actcattctc	360
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ccacngaaag catgtttata gtcttcagc agcaacgcca ggtgtctagg cacagatgaa	480
cccctcctta ggatccccac tgctcatcat agtgcctacc tttgttaaag tactagtcac	540
gcagtgtcac aaggaatgtt tacttttcca aatccccagc tagaggccag ggatgggtca	600
tctatttcta tatagcctgc acccagattg taggacagag ggcattgctng gtaaataatgt	660
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tc

1802

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18

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18

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20